

## **DRAWING ASSEMBLY OF EXERCISE MACHINE**

### **FIELD OF THE INVENTION**

The present invention relates generally to an exercise machine, and more particularly to a drawing assembly of an exercise machine.

### **BACKGROUND OF THE INVENTION**

In modern life, people pay more attention to health and body building. Some people go to gymnasium for physical training. In exercise, people will sweat to get metabolism quickly, and more particularly, it will loose weight. In gymnasium, multi-function exercise machine is the most popular equipment to user.

FIG. 1 shows a conventional multi-function exercise machine 1, which has a frame 2 and some training assemblies disposed on the frame 2, such as weight lifting assembly 3 and weight drawing assembly 4. The loadings of these training assemblies 3 and 4 are provided by a burden assembly 7. Some ropes 5 and pulleys 6 are provided to transmit the loading from the burden assembly 7 to the training assemblies 3 and 4.

These training assemblies 3 and 4 are fixed at the frame 2 for training the specific muscle of user. So, there only are a few main muscles, such as biceps, triceps and pectorals etc., can be trained by the exercise machine 1, and each of the training assemblies 3 and 4 only can train one specific muscle. User needs to switch to the different training assemblies to train muscles. Sometime it is inconvenient to the user.

## SUMMARY OF THE INVENTION

The primary objective of the invention is to provide a drawing assembly of an exercise machine, which has a simpler structure and can be adjusted by user to train different portions of muscles.

According to the objective of the invention, an exercise drawing assembly is adapted to be installed on a base frame of a multi-function exercise machine. The multi-function exercise machine has a burden assembly connected to said drawing assembly by means of ropes so as to provide damping to the drawing assembly when it is in operation. The drawing assembly comprises two controlling members and two arms. The controlling member are fastened at two lateral sides of said base frame of said multi-function exercise machine, and each of said controlling members having a plurality of openings in substantially an equal interval. The two arms are pivoted to said controlling members respectively for free rotating, and each of said arms having a positioning member which is capable of inserting one of the openings of said controlling

member such that said arms can be fixed on said controlling members with determined postures.

## **BRIEF DESCRIPTION OF THE DRAWINGS**

FIG. 1 shows a structure sketch of a multi-function exercise machine of the prior art.

FIG. 2 shows a structure sketch of a preferred embodiment of the present invention installed on a base frame of a multi-function exercise machine.

FIG. 3 shows an exploded view of the preferred embodiment of the present invention.

FIG. 4 shows a front side view of the preferred embodiment of the present invention installed on the base frame of the exercise machine in operating, showing the arms are adjusted to a horizontal position.

FIG. 5 shows a front side view of the preferred embodiment of the present invention installed on the base frame of the exercise machine in operating, showing the arms are adjusted to a upright position.

## **DETAILED DESCRIPTION OF THE INVENTION**

Please refer to FIGS. 2-3, an exercise drawing assembly 40

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according to a preferred embodiment of the present invention is shown to be installed in a multi-function exercise machine 10. The multi-function exercise machine 10 comprises a base frame 20, the drawing assembly 40 and other training assemblies, a burden assembly 25, a seat 28 and a back support 29. The base frame 20 has a bottom frame 21, a first vertical post 22 and a second vertical post 23 having ends fixed at the bottom frame 21, and a top post 24 secured at the top ends of the first vertical post 22 and the second vertical post 23. The first vertical post 22 further has a transverse lower post 221. The loading of the training assemblies will be provided by the burden loading assembly 25 via ropes 27 and pulleys. The structure described above can be seen in a conventional exercise machine such that detailed description thereof is not necessary.

The drawing assembly 40 is disposed at the first vertical post 22 of the base frame 20, which has two arms 41. Please refer to FIG. 3 (FIG. 3 only shows one of the arms 41, the other arm 41 has the same structure), each of the arms 41 has a main tube 42. Pulley 26 is provided at the bending portion of the main tube 42 and pulley 26' is provided at the distal end of the main tube 42. One end of the main tube 42 disposes with a side tube 43, which has a smaller dimension than the main tube 42. A positioning member 44 is disposed at the main tube 42 adjacent to the side tube 43. In the present embodiment, the positioning member 44 is a bolt.

The drawing assembly 40 further has two controlling members 45, which are semicircle pieces and provided with a plurality of openings 451

thereon in an equal interval. Each of the controlling members 45 has a coupling tube 452 at the central thereof for securing the controlling members 45 at the lower post 221 of the first vertical post 22 of the base frame 20. The distal ends of the side tubes 43 of the arms 41 insert respectively into the coupling tubes 452 of the corresponding controlling members 45 for free rotating. The two positioning members 44 of the two arms 41 can be inserted respectively into one of the openings 451, whereby the arms 41 can be turned to different angles and secured at there via the positioning members 44 being engaging to different openings 451, that is, the arms 41 can be fixed on the controlling members 45 with determined postures respectively.

The drawing assembly 40 is provided with two bearing members 46 respectively disposed at the locations between the controlling members 45 and the corresponding arms 41 to keep them in a predetermined distance for facilitating the arms 41 to be turned.

Two ropes 27 each has one end connecting to the burden assembly 25, the other end thereof passes through the pulley 26, the main tube 41 and the pulley 26' in sequence. A chain 60 has one end secured at the distal end of the rope 27 and connected to a holding member 70 at the other end thereof for user to grip the holding member 70 and to pull it out to against the damping provided by the burden assembly 25.

In operating, please refer to FIG. 4, the arms 41 of the drawing assembly 40 can be turned to a horizontal position and the positioning

members 44 are respectively engaging to the middle openings 451 of the controlling members 45 for locking the arms 41. User pull the holding member 70 can train the muscles of chest and shoulder.

The arms 41 of the drawing assembly 40 also can be turned to a upright position and be locked in there as shown in FIG. 5. User pull the holding member 70 can train the muscles of arms and back.

For the same reason, the arms 41 of the drawing assembly 40 can be turned to different angles and can be locked in there via the positioning members 44 engaging to the specific openings 451 of the controlling members 45. User can train different muscles by changing the angles of the arms 41 as he/she wanted.